

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. Canceled.
2. (Previously presented) A method of providing information to a second passenger vehicle from a source to create an information network, the method comprising steps of:
 - transmitting an information signal containing the information with a transmitter located at the source;
 - receiving the information signal with a first transmitter/receiver unit located on a first passenger vehicle
 - re-transmitting the information signal with the first transmitter/receiver unit to an additional transmitter/receiver unit;
 - receiving the information signal with the additional transmitter/receiver unit;
 - re-transmitting the information signal with the additional transmitter/receiver unit to a receiver located on the second passenger vehicle; and
 - storing data when the second passenger vehicle becomes disconnected from the information network so that the information can be provided when the second passenger vehicle is reconnected to the information network.
3. (Canceled)
4. (Previously presented) The method as claimed in claim 2, wherein the additional transmitter/receiver unit is located on a fixed platform.

5. (Previously presented) The method as claimed in claim 2, wherein the additional transmitter/receiver unit is located on a third passenger vehicle.
6. (Previously presented) The method as claimed in claim 5, wherein at least two of the passenger vehicles are located on a pathway and are traveling in the same direction.
7. (Previously presented) The method as claimed in claim 5, wherein at least two of the passenger vehicles are located on a pathway and are traveling in opposite directions.
8. (Canceled)
9. (Canceled)
10. (Previously presented) The method as claimed in claim 5, wherein the first and second passenger vehicles are located on a first pathway and wherein the third passenger vehicle is located on a second pathway that intersects the first pathway.
11. (Canceled)
12. (Canceled)
13. (Previously presented) The method as claimed in claim 5, further comprising a step of monitoring the passenger vehicles and information signals along a pathway with a pathway station.
14. (Currently amended) The method as claimed in claim 5, further including a step of providing the information signal to the second passenger vehicle located in an area where ~~the~~ there is an insufficient number of available passenger vehicles to provide the information signal, with a supplemental communication system.

15. (Previously presented) A system that provides information to and from a second passenger vehicle, comprising:

a transmitter unit, located at an information source, that transmits the information signal;

a first transmitter/receiver unit located on a first passenger vehicle that is located on a pathway within a signal coverage area of the information source, that receives the information signal and that re-transmits the information signal;

a directional multibeam antenna, coupled to the first transmitter/receiver unit, that re-transmits the information signal in a plurality of directions, at least one of the plurality of directions being along the pathway;

an additional transmitter/receiver unit located on a third passenger vehicle, that receives the information signal from the first transmitter/receiver unit and re-transmits the information signal to provide the information signal between the source and the second passenger vehicle;

an additional directional antenna coupled to the additional transmitter/receiver unit that re-transmits the information signal along the pathway; and

a receiver, located on the second passenger vehicle that is located on the pathway, the receiver adapted to receive the information signal from the additional transmitter/receiver unit;

wherein the multibeam antenna is adapted to transmit the information signal in a first direction at a first frequency and to transmit the information signal in a second direction at a second frequency.

16. (Previously presented) The system as claimed in claim 15, wherein the first passenger is located on the pathway and in an area where there is another, already existing communication channel.

17. (Canceled)

18. (Previously presented) The system as claimed in claim 15, wherein the passenger vehicles are ground vehicles.

19. (Previously presented) The system as claimed in claim 15, wherein the passenger vehicles are aircraft.

20. (Previously presented) The system as claimed in claim 15, wherein at least two of the passenger vehicles are traveling in the same direction along the pathway.

21. (Previously presented) The system as claimed in claim 15, wherein at least two of the passenger vehicles are traveling in opposite directions along the pathway.

22. (Previously presented) The system as claimed in claim 15, wherein at least two of the passenger vehicles are located on parallel pathways.

23. (Canceled)

24. (Previously presented) The system as claimed in claim 15, wherein the third passenger vehicle is located on a second pathway that intersects the pathway.

25. (Canceled)

26. (Canceled)

27. (Previously presented) The system as claimed in claim 15, wherein the third passenger vehicle is not located on a pathway.

28. (Previously presented) The system as claimed in claim 15, further comprising a supplemental communication network that communicates directly with the second passenger vehicle that is located in an area where there are insufficient other passenger vehicles available to provide the information signal to the second passenger vehicle.

29. (Previously presented) The system as claimed in claim 15, further comprising:
at least one pathway station that monitors the passenger vehicles along the pathway; and
a pathway control station, coupled to the at least one pathway station and to an existing communications network, that controls communication between the pathway station and the existing communication network.

30. (Previously presented) A method of providing information to passenger vehicles, comprising steps of:
transmitting an information signal containing the information from an information source to a first transmitter/receiver unit located on a first passenger vehicle;
receiving the information signal with the first transmitter/receiver unit;
re-transmitting the information signal with the first transmitter/receiver unit;
repeating the steps of receiving and re-transmitting the information signal with an additional transmitter/receiver unit located on a third passenger vehicle;
receiving the information signal from the additional transmitter/receiver unit with a receiver that is located on a second passenger vehicle; and
wherein the information signal includes a first portion of information intended for the first passenger vehicle and a second portion of information intended for the second passenger vehicle; and
wherein the step of re-transmitting the information signal with the first transmitter/receiver unit does not include re-transmitting the first portion of information.

31. (Previously presented) The method as claimed in claim 30, wherein the first and second passenger vehicles are located on first and second predetermined pathways, which are parallel pathways.

32. (Canceled)

33. (Canceled)

34. (Canceled)

35. (Previously presented) The method as claimed in claim 30, wherein the first and second passenger vehicles are located on first and second predetermined pathways, which are pathways that intersect.

36. (Canceled)

37. (Canceled)

38. (Canceled)

39. (Canceled)

40. (Previously presented) The method as claimed in claim 149, wherein the step of re-transmitting the information signal includes re-transmitting the information signal along the first predetermined vehicular pathway to the third passenger vehicle that is located on the first predetermined vehicular pathway.

41. (Previously presented) The method as claimed in claim 40, wherein the step of re-transmitting the information signal includes re-transmitting the information signal along the first predetermined pathway using a directional antenna coupled to the first transmitter/receiver unit.

42. (Previously presented) The method as claimed in claim 41, wherein the step of re-transmitting the information signal includes re-transmitting the information signal with a multibeam antenna in a plurality of directions, at least one of the plurality of directions being along the first predetermined pathway.

43. (Previously presented) The method as claimed in claim 40, further comprising a step of monitoring the passenger vehicles and information signals along the first predetermined pathway with a first pathway station.

44. (Previously presented) The method as claimed in claim 43, wherein the step of monitoring includes monitoring the passenger vehicles and information signals along the first predetermined pathway with a second pathway station, and assuming control of at least some of the passenger vehicles with the second pathway station to prevent overloading of the first pathway station.

45. (Previously presented) The method as claimed in claim 30, further comprising a step of providing the information in the information signal for access by a passenger associated with at least one of the passenger vehicles.

46. (Previously presented) The method as claimed in claim 30, further comprising a step of altering a direction of travel of the second passenger vehicle based on information in the information signal received by the receiver.

47. (Previously presented) The method as claimed in claim 30, wherein the steps of transmitting and re-transmitting the information signal include transmitting and re-transmitting a signal that is digitally encoded with the information.

48. (Canceled)

49. (Previously presented) The method as claimed in claim 5, further comprising a step of providing the information in the information signal for access by a passenger associated with the second passenger vehicle.

50. (Previously presented) The method as claimed in claim 5, wherein the step of re-transmitting the information signal with the first transmitter/receiver unit includes re-transmitting

the information signal with a directional antenna coupled to the first transmitter/receiver unit.

51. (Previously presented) The method as claimed in claim 5, wherein the step of re-transmitting the information signal with the first transmitter/receiver unit includes re-transmitting the information signal with a multibeam antenna in a plurality of directions, at least one of the plurality of directions being along a pathway on which the first and second passenger vehicles are located.

52. (Previously presented) The method as claimed in claim 5, wherein the steps of transmitting and re-transmitting the information signal include transmitting and re-transmitting a signal that is digitally encoded with the information.

53. (Previously presented) The method as claimed in claim 2, further comprising a step of altering a direction of travel of the second passenger vehicle in response to information received by the receiver.

54. (Previously presented) The method as claimed in claim 5, further comprising a step of providing the information for access by a first passenger associated with the third passenger vehicle.

55. (Previously presented) The method as claimed in claim 54, further comprising a step of providing the information for access by a second passenger associated with the second passenger vehicle.

56. (Previously presented) The method as claimed in claim 55, wherein the information signal includes a first portion of information intended for the first passenger vehicle and a second portion of information intended for the second passenger vehicle, and wherein the step of re-transmitting the information signal with the additional transmitter/receiver unit does not include re-transmitting the first portion of information.

57. (Previously presented) The method as claimed in claim 13, wherein the step of monitoring the passenger vehicles and information signals along the pathway with a pathway station includes monitoring the passenger vehicles and information signals along the pathway with an additional pathway station; and assuming control of at least some of the passenger vehicles with the additional pathway station to prevent overloading of the pathway station.

58. (Previously presented) The system as claimed in claim 15, wherein the transmitter includes a directional antenna adapted to transmit the information signal along the pathway.

59. (Previously presented) The system as claimed in claim 15, wherein the second passenger vehicle and the third passenger vehicle each includes an interface adapted to receive the information in the information signal and to provide the information for access by a passenger associated with second passenger vehicle and the third passenger vehicle, respectively.

60. (Previously presented) The system as claimed in claim 15, wherein the information signal is digitally encoded with the information.

61. (Previously presented) A system that provides information to and from a second passenger vehicle, comprising:

- a transmitter unit, located at an information source, that transmits the information signal;

- a first transmitter/receiver unit located on a first passenger vehicle that is located on a pathway within a signal coverage area of the information source, that receives the information signal and that re-transmits the information signal;

- a directional multibeam antenna, coupled to the first transmitter/receiver unit, that re-transmits the information signal in a plurality of directions, at least one of the plurality of directions being along the pathway;

- an additional transmitter/receiver unit located on a third passenger vehicle, that receives the information signal from the first transmitter/receiver unit and re-transmits the information signal to provide the information signal between the source and the second passenger vehicle;

an additional directional antenna coupled to the additional transmitter/receiver unit that re-transmits the information signal along the pathway; and

a receiver, located on the second passenger vehicle that is located on the pathway, the receiver adapted to receive the information signal from the additional transmitter/receiver unit;

wherein the information signal includes a first portion of information intended for the first passenger vehicle and a second portion of information intended for the second passenger vehicle, and wherein the information signal re-transmitted from the first passenger vehicle does not include the first portion of information.

62. (Canceled)

63. (Previously presented) The system as claimed in claim 15, wherein the information includes weather information.

64. (Previously presented) The system as claimed in claim 15, wherein the information includes traffic information.

65. (Previously presented) The system as claimed in claim 15, wherein the information includes information regarding at least one of a location and a heading of at least one of the passenger vehicles.

66. (Previously presented) The system as claimed in claim 15, wherein at least one of the passenger vehicles is configured to allow a passenger to alter a direction of travel of the passenger vehicle in response to the information.

67. (Previously presented) The system as claimed in claim 127, further comprising an additional pathway station that assumes control of at least some of the passenger vehicles to prevent overloading of the pathway station.

68 (Previously presented) A system that provides information to and from passenger vehicles, the system comprising:

- a transmitter located at an information source, that transmits an information signal including the information;

- a first transmitter/receiver unit located on a first passenger vehicle, the first transmitter/receiver unit being adapted to receive and re-transmit the information signal;

- a second transmitter/receiver unit located on a second passenger vehicle, the second transmitter/receiver unit being adapted to receive and re-transmit the information signal; and

- a receiver that receives the information signal re-transmitted by the second transmitter/receiver unit, the receiver being located on a third passenger vehicle;

- wherein the information signal includes a first portion of information intended for the first passenger vehicle and a second portion of information intended for the second passenger vehicle; and

- wherein the information signal re-transmitted from the first passenger vehicle does not include the first portion of information.

69. (Previously presented) The system as claimed in claim 150, wherein the second predetermined pathway is the first predetermined pathway.

70. (Previously presented) The system as claimed in claim 150, wherein the first and second predetermined pathways are parallel pathways.

71. (Previously presented) The system as claimed in claim 150, wherein the second predetermined pathway intersects the first predetermined pathway.

72. (Previously presented) The system as claimed in claim 150, wherein the passenger vehicles are airplanes.

73. (Previously presented) The system as claimed in claim 72, wherein the first predetermined pathway is disposed above the second predetermined pathway.

74. (Previously presented) The system as claimed in claim 72, wherein the first predetermined pathway is disposed below the second predetermined pathway.

75. (Previously presented) The system as claimed in claim 68, wherein the passenger vehicles are ground vehicles.

76. (Previously presented) The system as claimed in claim 75, wherein the information includes traffic information.

77. (Previously presented) The system as claimed in claim 68, wherein the information includes weather information.

78. (Previously presented) The system as claimed in claim 68, wherein the information includes at least one of a heading and a position of at least one of the passenger vehicles.

79. (Previously presented) The system as claimed in claim 150, further comprising a pathway station that monitors the passenger vehicles and information signals along the first and second predetermined pathways.

80. (Previously presented) The system as claimed in claim 79, further comprising an additional pathway station that that monitors the passenger vehicles and information signals along the first and second predetermined pathways assumes control of at least one of the passenger vehicles to prevent overloading of the pathway station.

81. (Previously presented) The system as claimed in claim 79, further comprising a pathway control station, coupled to the pathway station and to another communications network, that controls communication between the pathway station and the another communication network.

82. (Previously presented) The system as claimed in claim 68, wherein the passenger vehicles are marine vehicles.

83. (Previously presented) The system as claimed in claim 68, wherein the third passenger vehicle is located on a first predetermined pathway.

84. (Previously presented) The system as claimed in claim 68, wherein at least one of the first and second transmitter/receiver units includes a directional antenna that transmits the information signal along a first predetermined pathway on which the third passenger vehicle is located to the receiver.

85. (Previously presented) The system as claimed in claim 68, wherein at least one of the passenger vehicles includes an interface adapted to provide the information in the information signal for access by a passenger associated with the passenger vehicle.

86. (Previously presented) The system as claimed in claim 68, wherein the transmitter includes a directional antenna that transmits the information signal along a first predetermined pathway on which the first passenger vehicle is located.

87. (Canceled)

88. (Previously presented) The system as claimed in claim 68, wherein the first passenger vehicle is an aircraft and the second passenger vehicle is a ground vehicle.

89. (Previously presented) The system as claimed in claim 88, wherein the first transmitter/receiver unit includes an omni-directional antenna that re-transmits the information signal to the receiver.

90. (Canceled)

91. (Canceled)

92. (Canceled)

93. (Canceled)

94. (Canceled)

95. (Canceled)

96. (Canceled)

97. (Canceled)

98. (Canceled)

99. (Canceled)

100. (Canceled)

101. (Canceled)

102. (Previously presented) The vehicular communication network as claimed in claim 151, wherein the first information signal is digitally encoded with the information.

103. (Previously presented) A vehicular communication network comprising:
a plurality of passenger vehicles located on vehicular pathways and being adapted to transmit and receive signals to and from one another; and

a pathway station adapted to monitor the plurality of passenger vehicles and signals along the vehicular pathways;

wherein the plurality of passenger vehicles includes:

a first passenger vehicle equipped with a first transmitter/receiver unit adapted to transmit ~~an~~ a first information signal containing information;

a second passenger vehicle equipped with a second transmitter/receiver unit adapted to receive the first information signal from the first transmitter/receiver unit and to retransmit at least a portion of the first information signal; and

a third passenger vehicle equipped with a third transmitter/receiver unit adapted to receiver at least the portion of the first information signal from the second transmitter/receiver unit; and

wherein the information includes a first portion of information intended for the first passenger vehicle and a second portion of information intended for the second passenger vehicle; and wherein the portion of the first information signal re-transmitted by the first transmitter/receiver unit does not include the first portion of information.

104. (Canceled)

105. (Canceled)

106. (Canceled)

107. (Canceled)

108. (Previously presented) The vehicular communication network as claimed in claim 151, further comprising an additional pathway station that assumes control of at least some of the plurality of passenger vehicles, to prevent overloading of the pathway station.

109. (Canceled)

110. (Canceled)

111. (Canceled)

112. (Canceled)

113. (Canceled)

114. (Canceled)

115. (Canceled)

116. (Canceled)

117. (Previously presented) The vehicular communication network as claimed in claim 151, wherein the passenger vehicles are ground vehicles.

118. (Previously presented) The vehicular communication network as claimed in claim 117, wherein the information includes weather information.

119. (Previously presented) The vehicular communication network as claimed in claim 117, wherein the information includes traffic information.

120. (Previously presented) The vehicular communication network as claimed in claim 117, wherein the information includes information regarding at least one of a heading and a position of at least one of the passenger vehicles.

121. (Canceled)

122. (Previously presented) The method as claimed in claim 5, wherein transmitting the information signal includes transmitting the information signal at a first frequency, and wherein re-transmitting the information signal with the first transmitter/receiver unit includes re-transmitting the information signal at a second frequency.

123. (Previously presented) The method as claimed in claim 13, wherein the step of monitoring the passenger vehicles includes monitoring a position and a velocity of the passenger vehicles.

124. (Previously presented) The method as claimed in claim 13, further comprising steps of:
transmitting information to the passenger vehicles from the pathway station; and
transmitting information from the passenger vehicles to the pathway station.

125. (Previously presented) The system as claimed in claim 127, wherein the pathway station is adapted to monitor a position and velocity of the passenger vehicles along the pathway.

126. (Previously presented) The system as claimed in claim 127, wherein the pathway station is adapted to send signals to the passenger vehicles and to receive signals from the passenger vehicles.

127. (Previously presented) A system that provides information to and from a second passenger vehicle, comprising:

a transmitter unit, located at an information source, that transmits the information signal;

a first transmitter/receiver unit located on a first passenger vehicle that is located on a pathway within a signal coverage area of the information source, that receives the information signal and that re-transmits the information signal;

a directional multibeam antenna, coupled to the first transmitter/receiver unit, that re-transmits the information signal in a plurality of directions, at least one of the plurality of directions being along the pathway;

an additional transmitter/receiver unit located on a third passenger vehicle, that receives the information signal from the first transmitter/receiver unit and re-transmits the information

signal to provide the information signal between the source and the second passenger vehicle;
an additional directional antenna coupled to the additional transmitter/receiver unit that re-transmits the information signal along the pathway;

a receiver, located on the second passenger vehicle that is located on the pathway, the receiver adapted to receive the information signal from the additional transmitter/receiver unit;

a pathway station that monitors the passenger vehicles along the pathway; and

a pathway control station, coupled to the pathway station and to an existing communications network, that controls communication between the pathway station and the existing communication network;

wherein the pathway control station, the pathway station and the passenger vehicles form an information network, and wherein the pathway control station includes a storage medium to store data relating to one of the passenger vehicles when the one passenger vehicle becomes disconnected from the information network so that the information can be provided when the one passenger vehicle is reconnected to the information network.

128. (Canceled)

129. (Previously presented) The method as claimed in claim 30, wherein the passenger vehicles form an information network, and further comprising a step of storing data when one passenger vehicle becomes disconnected from the information network so that the information can be provided when the one passenger vehicle is reconnected to the information network.

130. (Previously presented) The method as claimed in claim 30, wherein transmitting the information signal includes transmitting the information signal at a first frequency, and wherein re-transmitting the information signal with the first transmitter/receiver unit includes re-transmitting the information signal at a second frequency.

131. (Previously presented) The method as claimed in claim 43, wherein the step of monitoring the passenger vehicles includes monitoring a position and velocity of the passenger vehicles along the pathway.

132. (Previously presented) The method as claimed in claim 43, further comprising steps of:
transmitting information to the passenger vehicles from the pathway station; and
transmitting information from the passenger vehicles to the pathway station.

133. (Previously presented) The method as claimed in claim 51, wherein the step of re-transmitting the information signal with the first transmitter/receiver unit in a plurality of directions includes re-transmitting the information signal in a first direction at a first frequency and re-transmitting the information signal in a second direction at a second frequency.

134. (Canceled)

135. (Previously presented) The system as claimed in claim 79, wherein the pathway station is adapted to monitor a position and velocity of the passenger vehicles along the pathway.

136. (Previously presented) The system as claimed in claim 79, wherein the pathway station is adapted to send signals to the passenger vehicles and to receive signals from the passenger vehicles.

137. (Previously presented) The system as claimed in claim 81, wherein the pathway control station, the pathway station and the passenger vehicles form an information network, and wherein the pathway control station includes a storage medium that stores data when one passenger vehicle becomes disconnected from the information network so that the information can be provided when the one passenger vehicle is reconnected to the information network.

138. (Canceled)

139. (Canceled)

140. (Canceled)

141. (Canceled)

142. (Canceled)

143. (Previously presented) The vehicular communication network as claimed in claim 151, wherein the first transmitter/receiver unit is adapted to re-transmit the first information signal at a first frequency, and wherein the second transmitter/receiver unit is adapted to re-transmit at least the portion of the first information signal at a second frequency.

144. (Previously presented) The vehicular communication network as claimed in claim 151, wherein the pathway station is adapted to monitor a position and a velocity of the plurality of passenger vehicles along the vehicular pathways.

145. (Previously presented) The vehicular communication network as claimed in claim 151, wherein the pathway station is adapted to transmit signals to the plurality of passenger vehicles and to receive signals from the plurality of passenger vehicles.

146. (Canceled)

147. (Canceled)

148. (Previously presented) The method as claimed in claim 2, wherein the first and second passenger vehicles are located on a pathway, and wherein the step of transmitting the information signal with the transmitter includes transmitting the information signal along the pathway.

149. (Previously presented) The method as claimed in claim 30, wherein the first passenger vehicle is located on a first predetermined, vehicular pathway, and wherein the second passenger vehicle is located on a second predetermined vehicular pathway.

150. (Previously presented) The system as claimed in claim 68, wherein the first passenger vehicle is located on a first predetermined, vehicular pathway, and wherein the second passenger vehicle is located on a second predetermined vehicular pathway.

151. (Currently amended) A vehicular communication network comprising:

a plurality of passenger vehicles located on vehicular pathways and being adapted to transmit and receive signals to and from one another; ~~and~~

a pathway station adapted to monitor the plurality of passenger vehicles and signals along the vehicular pathways; and

a pathway control station, coupled to the pathway station and to an existing communications network, that controls communication between the pathway station and the existing communications network;

wherein the plurality of passenger vehicles includes:

a first passenger vehicle equipped with a first transmitter/receiver unit adapted to transmit a first information signal containing information;

a second passenger vehicle equipped with a second transmitter/receiver unit adapted to receive the first information signal from the first transmitter/receiver unit and to retransmit at least a portion of the first information signal; and

a third passenger vehicle equipped with a third transmitter/receiver unit adapted to receiver at least the portion of the first information signal from the second transmitter/receiver unit;

wherein the pathway control station, the pathway station and the passenger vehicles form an information network; and

wherein the pathway control station includes a storage medium to store data relating to one of the passenger vehicles when the one passenger vehicle becomes disconnected from the information network so that the information can be provided when the one passenger vehicle is reconnected to the information network.

152. (Previously presented) The vehicular communication network as claimed in claim 151, wherein the pathway station is adapted to send information signals to the plurality of passenger vehicles and to receive information signals from the plurality of passenger vehicles.

153. (Canceled)